ABSTRACT OF THE DISCLOSURE

A semiconductor device having guard grooves uniformly filled with a semiconductor filler is provided. The four corners of a rectangular ring-shaped guard groove meet at right angles, and outer and inner auxiliary diffusion regions both rounded are connected to the four corners. Since the guard grooves do not have to be rounded, the plane orientation of a silicon single crystal exposed inside the guard grooves can be all {100}. Therefore, epitaxial growth in the guard grooves is uniformly carried out, and the grooves are filled with guard regions without defects.